



CONTENTS

*EDITORIAL***Cell Transplantation: Introduction to Volume 3**

Paul Sanberg

1

*ORIGINAL CONTRIBUTIONS***Functional Recovery Induced by Satellite Cell Grafts in Irreversibly Injured Muscles**

H.S. Alameddine, J.P. Louboutin, M. Dehaupas, A. Sébille, and M. Fardeau

3

Developmental Expression of Cytochrome P450S Within Intrasplenically Transplanted Fetal Hepatocytes From Spontaneously Hypertensive Rats

Kazuya Kato, W. John B. Hodgson, John D. Lutton, and Nader G. Abraham

15

Membrane Antigen Expression of Syngeneically But Heterotopically Transplanted Hepatocytes in Rats

Y. Fujikura, H. Kuniki, T. Sawada, K. Hamano, T. Akino, M. Shigetomi, A. Hirozane, and T. Fukumoto

23

Progressive Morphogenesis In Vivo After Transplantation of Cultured Small Bowel Epithelium

I.S. Tait, G.S. Evans, M. Kedingler, N. Flint, C.S. Potten, and F.C. Campbell

33

Mesothelial Cell Adherence to Vascular Prostheses and Their Subsequent Growth In Vitro

Apollo Pronk, Arthur A.G.M. Hoyneck van Papendrecht, Piet Leguit, Henri A. Verbrugh, Roel P.A.J. Verkooyen, and Theo J.M.V. van Vroonhoven

41

Porcine Islet-Like Cell Clusters Cure Diabetic Nude Rats When Transplanted Under the Kidney Capsule, But Not When Implanted Into the Liver or Spleen

Ollie Korsgren and Leif Jansson

49

In Vitro Inhibition of Insulin Release by Blood Mononuclear Cells From Insulin-Dependent Diabetic and Healthy Subjects: Synergistic Action of IL-1 and TNF

Vitaly Ablamunits, Flora Baranova, Thomas Mandrup-Poulsen, and Jørn Nerup

55

Effect of FK506 and Anti-CD4 Therapy on Fetal Pig Pancreas Xenografts and Host Lymphoid Cells in NOD/Lt, CBA, and BALB/c Mice

Kazuhiro Akita, M. Ogawa, and T.E. Mandel

61

Donor-Specific Unresponsiveness Induced by Intraportal Grafting and FK506 in Rat Islet Allografts: Importance of Low Temperature Culture and Transplant Site on Induction and Maintenance

Yohichi Yasunami, Shinichiroh Ryu, Masao Ueki, Takeshi Arima, Takafumi Kamei, Masao Tanaka, and Seiyo Ikeda

75

Development of a Method for Embedded-Culture of Pig Pancreatic Islet-Like Cell Clusters in Agarose Containing Maltose-Carrying Polystyrene (HEVM) and Nicotinamide

Hisako Ohgawara, Akira Kobayashi, Makiko Kawamura, Sachiyo Karibe, Qian Fu, Yasue Omori, and Toshihiro Akaike

83

Assessment of Islet Isolation Efficacy in Dogs

- Michael P.M. van der Burg, Onno R. Guicherit, Marijke Frölich, Johannes P. Scherft,
Frans A. Prins, Jan Anthonie Bruijn, and Hein G. Gooszen 91

Bacteremia Due to Transplantation of Contaminated Cryopreserved Pancreatic Islets

- Geoffrey D. Taylor, Terri Kirkland, Jonathan Lakey, Ray Rajotte, and Garth L. Warnock 103

Recyclable Islet Isografts: A Biological Insulin Pump to Facilitate Surgery in Diabetic Rats

- Hua Yang, Weiming Yu, Xiaoying Wan, Ismail Al-Abdullah, and James R. Wright, Jr. 107

NEW PATENTS

I

VOLUME 3, NUMBER 2

1994

CONTENTS**ORIGINAL CONTRIBUTIONS****Human Fetal Tissue Research: Practice, Prospects, and Policy**

- Alan Fine 113

Low-Pressure Aspiration Abortion for Obtaining Embryonic and Early Gestational Fetal Tissue for Research Purposes

- G. Michael Nauert and Thomas B. Freeman 147

Ultrastructural Characterization of a Regular Schwann-Axon-Islet Complex on the Intrasplenic Autografted Dog's Pancreatic Tissue

- Mario L.C. Madureira 153

Reinnervation of Isolated Islets of Langerhans Transplanted Beneath the Kidney Capsule in the Rat

- Andrew J. Portis, Ray V. Rajotte, and Teresa L. Krukoff 163

Ultramuscular Cytochemistry of Acetylcholinesterase Enzyme Activity in Pancreatic Tissue Transplants in Rats

- Ernest Adeghate and Tibor Donáth 171

Failure of Nonimmunogenic Islet Allografts to Induce Donor-Specific Immunological Unresponsiveness

- Robert J. Ketchum, Carol Moyer, Hua-Chang Su, and Wayne V. Moore 179

Reversal of Graft-Versus-Host Disease with Infusion of Autologous Bone Marrow

- Camillo Ricordi, Andreas G. Tzakis, Adriana Zeevi, Witold B. Rybka, Anthony J. Demetris,
Pavlo A.C. Fontes, Michael A. Nalesnik, Massimo Trucco, Ferdinand O. Ukah, Edward D. Ball,
Edward E. Mullen, Ignazio R. Marino, John J. Fung, and Thomas E. Starzl 187

Transplantation of Hepatocytes: An In-Vitro and In-Vivo Study in Canines

- Pedro Rivas, Alfredo J. Fabrega, Daniel Schwartz, William Dagiantis, Michael G. Ward,
Jacqueline Blanchard, and Raymond Pollak 193

Design and Fabrication of Biodegradable Polymer Devices to Engineer Tubular Tissues

- D.J. Mooney, G. Organ, J.P. Vacanti, and R. Langer 203

VOLUME 3, NUMBER 3

1994

CONTENTS***SPECIAL ISSUE: THE SECOND INTERNATIONAL CONGRESS
OF THE CELL TRANSPLANT SOCIETY***

Program	v
List of Posters	xiv
Oral Abstracts (1-77)	211
Poster Abstracts (78-199)	231
Author Index	I

VOLUME 3, NUMBER 4

1994

CONTENTS***ORIGINAL CONTRIBUTIONS***

Expansion of Activated Lymphocytes Obtained From Renal Cell Carcinoma in an Automated Hollow Fiber Bioreactor Gilda G. Hillman, Martin L. Wolf, Emily Montecillo, Elia Younes, Esa Ali, J. Edson Pontes, and Gabriel P. Haas	263
The Mesentery as a Laminated Vascular Bed for Hepatocyte Transplantation Lynt B. Johnson, John Aiken, David Mooney, Betsy L. Schloo, Linda Griffith-Cima, Robert Langer, and Joseph P. Vacanti	273
Effects of Iso and Xeno Fetal Liver Fragments Transplantation on Acute and Chronic Liver Failure in Rats M. Hagihara, T. Shimura, K. Takebe, B. Munkhbat, and K. Tsuji	283
Cold-Preservation of Pancreatic Beta Cells Gregory S. Korbitt and Daniel G. Pipeleers	291
Staining and In Vitro Toxicity of Dithizone With Canine, Porcine, and Bovine Islets Samuel A. Clark, Kermit M. Borland, Sandra D. Sherman, Thelma C. Rusack, and William L. Chick	299
Differential Integrin Expression Facilitates Isolation of Human Fetal Pancreatic Epithelial Cells Fred Levine, Gillian M. Beattie, and Alberto Hayek	307

Cell Preservation in University of Wisconsin Solution During Isolation of Canine Islets of Langerhans

Martin P.M. van der Burg, Onno R. Guicherit, Marijke Frölich, Frans A. Prins, Jan Anthonie Bruijn, and Hein G. Gooszen

315

Preparation of Adult Pig Pancreatic Cells: Comparative Study of Methods With or Without Proteolytic Enzymes

Hisako Ohgawara, Akira Kobayashi, Suk-ja Chong, Toshihiro Akaike, and Yoko Hashimoto

325

Assessment of the Reproducibility of Alginate Encapsulation of Pancreatic Islets Using the MTT Colorimetric Assay

K.A. Heald, T.R. Jay, and R. Downing

333

Pore Morphology Effects on the Fibrovascular Tissue Growth in Porous Polymer Substrates

M. Conley Wake, Charles W. Patrick, Jr., and Antonios G. Mikos

339

Interferon- γ Induced Expression of MHC Antigens Facilitates Identification of Donor Cells in Chimeric Transplant Recipients

Abdul S. Rao, Anthony J. Demetris, Shiguang Qian, Noriko Murase, Youping Li, John J. Fung, and Thomas E. Starzl

345

A Minimally Invasive Technique for Intrathymic Cell Transplantation in the Dog

Robert D. Schachner, Tie Qian, Sheryl Strasser, Mathias D. Brendel, Rudolfo Alejandro, and Daniel H. Mintz

349

COMMENTARY

Large Bony Defects: Can Bone Cell Culture Fill the Gap?

P.C. Nolan, D.P. Hankey, R.A.B. Mollan, and D.J. Wilson

351

NEW PATENTS

I

VOLUME 3, NUMBER 5

1994

CONTENTS

ORIGINAL CONTRIBUTIONS

Transplantation of Encapsulated Bovine Chromaffin Cells in the Sheep Subarachnoid Space: A Preclinical Study for the Treatment of Cancer Pain

J.M. Joseph, M.B. Goddard, J. Mills, V. Padrun, A. Zurn, B. Zielinski, J. Favre, J.P. Gardaz, F. Mosimann, J. Sagen, L. Christenson, and P. Aebischer

355

Studies on Small (<300 μ m) Microcapsules: II—Parameters Governing the Production of Alginate Beads by High Voltage Electrostatic Pulses

Jean-Pierre Hallé, François A. Leblond, Jean-François Pariseau, Paul Jutras, Marie-Josée Brabant, and Yves Lepage

365

Hollow Fibers for Hepatocyte Encapsulation and Transplantation: Studies of Survival and Function in Rats

Michael B. Yang, Joseph P. Vacanti, and Donald E. Ingber

373

A New Technique for Isolating and Culturing Human Hepatocytes From Whole or Split Livers Not Used for Transplantation Kenneth Dorko, Paul D. Freeswick, Fabio Bartoli, Luca Cicalese, Brent A. Bardsley, Andreas Tzakis, and Andreas K. Nussler	387
Carboxyfluorescein (CFSE) Labelling of Hepatocytes for Short-Term Localization Following Intraportal Transplantation Hikaru Fujioka, Peter J. Hunt, Jacek Rozga, Guo-Du Wu, Donald V. Cramer, Achilles A. Demetriou, and Albert D. Mosconi	397
Hepatocellular Transplantation Into the Lung in Chronic Liver Failure Following Bile Duct Obstruction in the Rat P. Sandbichler, R. Erhart, P. Herbst, W. Vogel, M. Herold, O. Dietze, Th. Schmid, G. Kilma, and R. Margreiter	409
Unrelated Donor Bone Marrow Transplants in Children Alfred Grovas, Stephen A. Feig, Sheryl O'Rourke, Leonard Valentino, Fran Wiley, Lynne Hunt, Elliot M. Landaw, and James Gajewski	413
Morphology and Function of Cultured Human Fetal Pancreatic Cells Transplanted Into Athymic Mice: A Longitudinal Study Gillian M. Beattie, C. Butler, and Alberto Hayek	421
Improved Functional Survival of Human Islets of Langerhans in Three-Dimensional Matrix Culture Mathias D. Brendel, Shen Shen Kong, Rodolfo Alejandro, and Daniel H. Mintz	427
Single Donor Transplantation of Fresh and Cryopreserved Pancreatic Fragments Into the Liver Parenchyma in Syngeneic Rats R.L. Gao, L.T. Nguyen, and F.M. Guttman	437
Aberrant Function and Long-Term Survival of Mouse β Cells Exposed In Vitro to High Glucose Concentrations Martine Pehuet-Figoni, Eric Ballot, Jean-François Bach, and Lucienne Chatenoud	445
NEW PATENTS	I

CONTENTS

ORIGINAL CONTRIBUTIONS

Platelet-Derived Growth Factor Receptor Expression After Neural Grafting in a Rat Model of Parkinson's Disease Andrea E. Ballagi, Per Odin, Agneta Othberg-Cederström, Anja Smits, Wei-Ming Duan, Ollie Lindvall, and Keiko Funa	453
Human Embryonic Retinal Cell Transplants in Athymic Immunodeficient Rat Hosts Robert B. Aramant and Magdalene J. Seiler	461

Human Fetal Cortical Tissue Fragments Survive Grafting Following One Week Storage at +4°C Christian Humpel, Marc Bygdeman, Lars Olson, and Ingrid, Strömberg	475
Mechanical Stress-Induced Orientation and Ultrastructural Change of Smooth Muscle Cells Cultured in Three-Dimensional Collagen Lattices Keiichi Kanda and Takehisa Matsuda	481
Immune Privilege of the Testis for Islet Xenotransplantation (Rat to Mouse) Aamer Ar'Rajab, Ingemar J.A. Dawidson, Richard B. Harris, and James T. Sentementes	493
Immunocytochemical Detection and Characterization of Intrahepatic Human Pancreatic Islets After Combined Liver-Islet Allotransplantation Lucio Scopsi, Salvatore Andreola, Carlo Socci, Federico Bertuzzi, Valerio Di Carlo, Guido Pozza, Franco Rilke, Leandro Gennari, Giovanni Colella, Enrico Regalia, and Vincenzo Mazzaferro	499
The Fasciovascular Flap: A New Vehicle for Islet Transplantation Loren J. Borud, William W. Shaw, Edward Passaro, Jr., F. Charles Brunicardi, and Yoko Mullen	509
A Device to Measure the Oxygen Uptake Rate of Attached Cells: Importance in Bioartificial Organ Design Brent D. Foy, Avi Rotem, Mehmet Toner, Ronald G. Tompkins, and Martin L. Yarmush	515
CD36\pmDendritic Epidermal Cells: A Putative Actor in the Cutaneous Immune System Mahmoud Rouabhia, Nicolas Jobin, Robert Doucet, Jr., Julie Bergeron, and François A. Auger	529
In Vitro Reconstruction of Hybrid Arterial Media with Molecular and Cellular Orientations Keiichi Kanda and Takehisa Matsuda	537
<i>LIST OF CONTENTS, AUTHORS AND KEYWORD INDEX, VOLUME 3, 1994</i>	<i>I</i>

